

Abstract

By preliminarily measuring the gallium temperature and the length change of a temperature sensing element comprising a carbon nano tube having a continuous columnar gallium contained, then heating the temperature sensing element installed in a subject to have the temperature measure in the air, taking out the temperature sensing element subjecting to measure the gallium length, and substituting the measured gallium length in the formula, the temperature is measured accurately in a wide temperature range in a micrometer size or less environment.